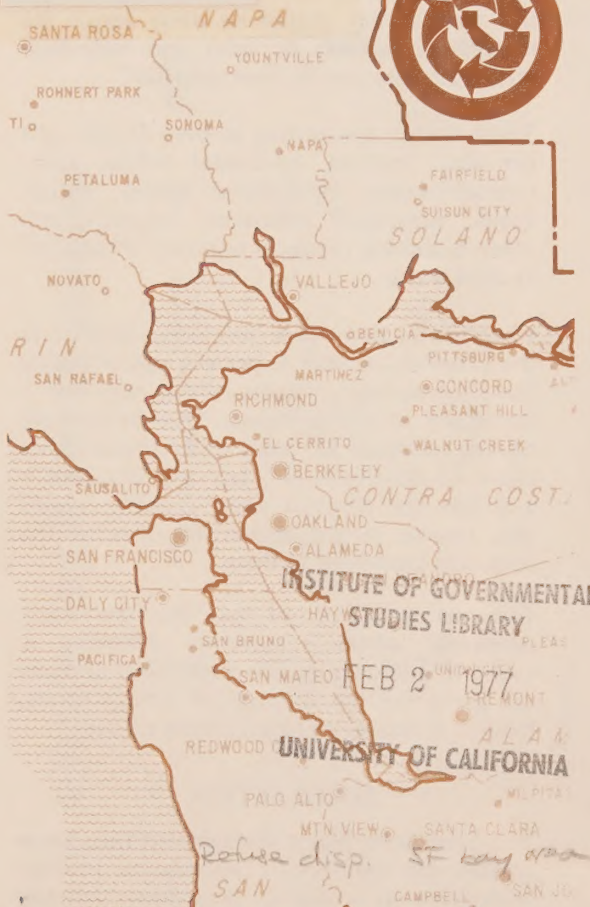


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BAY AREA SOLID WASTE MANAGEMENT PROJECT

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BAY AREA SOLID WASTE MANAGEMENT PROJECT

The San Francisco Bay Area is encountering a situation faced by most of the major cities of the world—what should be done about the increasing amounts of solid and hazardous wastes and the cost of their disposal?

These wastes, amounting to over 21,000 tons per day, include residential refuse, commercial wastes, agricultural wastes, dredge spoils, hazardous industrial materials, and other discarded products normally thought of as solid waste.

Historically, cities have resorted to landfills as the simplest and least expensive way of hiding these unwanted remains which are but a testimony to our affluence. Due to the continuing demand for land and various other types of developments, less and less land is available for disposal sites. Burying wastes also results in the irreversible loss of the resources contained in them.

The cost to dispose of only the Bay Area's municipal wastes is currently estimated at over \$40 million annually. Additional millions are spent for the disposal of dredge spoils, hazardous wastes and agricultural wastes.

STATE ACTION

The State Solid Waste Management Board was created for the specific purpose to provide leadership in creating programs, defining goals, and developing plans and legislation for controlling the disposal of such wastes including recovery of materials and conversion to energy and other useful purposes.

In June 1975 the Legislature assigned the Board the specific task of preparing a comprehensive analysis dealing with all of the solid wastes of the Bay Area. This analysis is the *Bay Area Solid Waste Management*

Project. The project must consider both the constraints impacting on waste management and the potential resource benefits in the wastes.

The conflicting pressures of social economic and environmental awareness make it increasingly difficult to dispose of these constantly generated wastes. Although there are several landfills in the Bay Area with many years of remaining life, most sites located close to population centers will be filled to capacity in a few years. Attempts to locate new replacement sites have for the most part, been unsuccessful.

Opportunities and systems for material and energy recovery are being developed nationwide. This project will evaluate their application to the resource needs and energy demands of the Bay Area.

THE APPROACH

To fulfill the legislative assignment, the State Board formed a Steering Committee with members from federal, state and local agencies, the general public, environmental groups, and private industry. The Committee provides local input to the project, permits the exchange of information and ensures a high level of coordination between the various organizations involved while providing an opportunity for public participation.

The project will utilize information available from the county solid waste management plans. Special short-term studies are being undertaken to obtain missing data. Primarily, the project is focusing on identifying the quantities and types of materials being discarded and their potential uses. These uses could include conversion to compost; extraction of various recoverable materials such as

steel, aluminum, glass and paper; and the use of the combustible portion to produce energy in the form of fuels, gas or steam for power or for conversion to various chemicals. Waste processing and conversion systems producing these products will be quantified in terms of their technical suitability, financial risk, product markets, environmental effects, and suitability for application within the Bay Area.

A number of public and private financing techniques are being examined to determine the benefits of public and/or private ownership and operation of these recovery facilities.

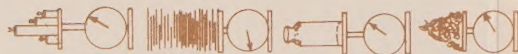
Identification of the institutional arrangements needed to gather together sufficient quantities of solid wastes to provide for economy of scale of operations is being undertaken. These arrangements may eventually result in new inter-county agreements for facility construction or operation.

THE END PRODUCT

A report will be presented to the State Legislature by June 30, 1976 containing the recommendations of the Board regarding future solid waste management and material or energy recovery activities in the Bay Area. These recommendations will be based upon careful considerations of the economic, social, technical and environmental characteristic of the various approaches that may be undertaken. Follow on studies may be required to optimize or refine certain details of the recommendations.

It is anticipated that the results of the project will be valuable for informed decision making by local entities, industry and the citizens for reutilization of currently unwanted materials for additional use.

ONE TON OF MUNICIPAL SOLID WASTE CONTAINS:



140 lbs.
METAL

YIELDS



100 lbs.
SCRAP
STEEL

AND



4 lbs
ALUMINUM
SCRAP

AND



36 lbs.
NON-FERROUS
SCRAP

1400 lbs.
PAPER
AND
ORGANICS

YIELDS



700 lbs.
COMPOST

OR



14,000 cu. ft.
SYN. GAS
FOR
HEATING
or COOLING



STEAM
FOR
INDUSTRY

OR



ENERGY

180 lbs.
GLASS

YIELDS



NEW
BOTTLES

OR



NEW
BRICKS

OR



NEW
BLOCKS

280 lbs.
REJECTS

TO LANDFILL

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STATE OF CALIFORNIA
STATE SOLID WASTE MANAGEMENT BOARD
1416 9TH STREET - ROOM 1335
SACRAMENTO, CALIFORNIA 95814

